



US006390241B1

(12) **United States Patent**  
**Nemie, Jr.**

(10) **Patent No.:** **US 6,390,241 B1**  
(45) **Date of Patent:** **May 21, 2002**

(54) **PRECISION NON-CONTAMINATION OILER**

(75) Inventor: **Edward J. Nemie, Jr.**, Newport News,  
VA (US)

(73) Assignee: **Siemens Automotive Corporation**,  
Auburn Hills, MI (US)

(\*) Notice: Subject to any disclaimer, the term of this  
patent is extended or adjusted under 35  
U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/518,170**

(22) Filed: **Mar. 2, 2000**

(51) **Int. Cl.**<sup>7</sup> ..... **F01M 11/04**

(52) **U.S. Cl.** ..... **184/105.3; 137/318; 141/346**

(58) **Field of Search** ..... 184/105.1, 105.2,  
184/105.3; 137/318; 141/346

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

1,444,235 A	2/1923	Colgan	
RE15,675 E	8/1923	Skelly	
1,692,320 A	11/1928	Zerk	
1,802,523 A	4/1931	Morangier	
1,833,402 A	11/1931	Mundis	
4,165,769 A	8/1979	Hoffmann	141/198

5,048,578 A	*	9/1991	Dorf et al.	141/346
5,546,979 A	*	8/1996	Clark, II et al.	137/318
5,975,164 A		11/1999	Whaley et al.	141/351
6,199,578 B1	*	3/2001	Clark, II	137/318

\* cited by examiner

*Primary Examiner*—David Fenstermacher

(57) **ABSTRACT**

An apparatus for lubricating a surface. The apparatus includes a cylinder having an interior wall extending longitudinally therethrough. The wall defines an opening. The apparatus also includes a lubricating fluid reservoir located upstream from the opening and a path of fluid communication fluidly connecting the reservoir and the opening. The apparatus also includes a valve located in the path of fluid communication. The valve is biased to close the path of fluid communication. At least one valve opening member is disposed in the opening, with the at least one valve opening member operatively connected to the valve. A surface to be lubricated is insertable into the opening such that the surface engages the at least one valve opening member. The at least one valve opening member opens the valve, allowing the fluid to flow downstream from the reservoir, through the path of fluid communication and to the opening to the surface to be lubricated. A method of lubricating the surface is also disclosed.

**15 Claims, 4 Drawing Sheets**

